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WHAT IS CLAIMED IS:

1. A fence tape, rope or wire for transmitting an electric current to an animal that touches the fence tape, rope or wire (1; 7), comprising

an electrically substantially non-conductive support structure (2; 8) and

an electrically conductive conduction structure at least locally exposed electrically to the environment, having at least two different, electrically conductive materials having mutually distinctive electrical and mechanical properties, a first one of the materials having a better electrical conductivity than the second one of the materials, and the second one of the materials having a greater resistance to tensile and bending loads than the first one of the materials, the conduction structure comprising at least one composite filament (3; 9; 10; 13), having, viewed in cross section, a conduction zone (4; 11; 14) from the first, electrically better conducting one of the materials, and a self-supporting support zone (5; 12; 15) from the second one of the materials, being the stronger material as to tensile and bending loadability, wherein the conduction zone (4) constitutes a core of the at least one filament (3), and wherein the support zone (5) constitutes a jacket of the at least one filament (3), which envelops the core.

- 2. A fence tape, rope or wire according to claim 1, wherein the conduction zone (4) is in adhesion-free contact with the support zone (5).
- 3. A fence tape, rope or wire according to claim 1, wherein the material of the support zone (5) is corrosion-resistant steel.
- 4. A fence tape, rope or wire according to claim 1, wherein the material of the conduction zone (4) is substantially copper.
- 5. A fence tape, rope or wire according to claims 3 and 4, wherein the at least one filament (3; 10; 13) has a cross-sectional area of which at least 5% forms part of the support zone (5).

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6. An electrically conductive filament for a fence tape, rope or wire (1; 7) having a diameter between 0.05 mm and 1 mm, having a composite structure having at least two different, electrically conductive materials having mutually distinctive electrical and mechanical properties, a first one of the materials having a better electrical conductivity than the second one of the materials, and the second one of said materials having a greater resistance to tensile and bending loads, while, viewed in cross section, a conduction zone (4; 11; 14) is manufactured from the first, electrically better conductive one of the materials, and a self-supporting support zone (5; 12; 15) is manufactured from the second one of the materials, being the stronger material as to tensile and bending loadability,

wherein the conduction zone (4) forms a core and wherein the support zone (5) forms a jacket which envelops the core (4).

- 7. A filament according to claim 6, wherein the conduction zone (4) is in adhesion-free contact with the support zone (5).
- 8. A filament according to claim 6, wherein the material of the support zone (5) is corrosion-resistant steel.
- 9. A filament according to claim 6, wherein the material of the conduction zone (4) is substantially copper.

10. A filament according to claims 8 and 9, having a cross-sectional area of which at least 5% forms part of the support zone (5).

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